



STATE OF MARYLAND

# DMMH

**Maryland Department of Health and Mental Hygiene**  
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**Office of Preparedness & Response**

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**October 5, 2007**

## **Public Health & Emergency Preparedness Bulletin: # 2007:39** **Reporting for the week ending 09/29/07 (MMWR Week #39)**

### **CURRENT HOMELAND SECURITY THREAT LEVELS**

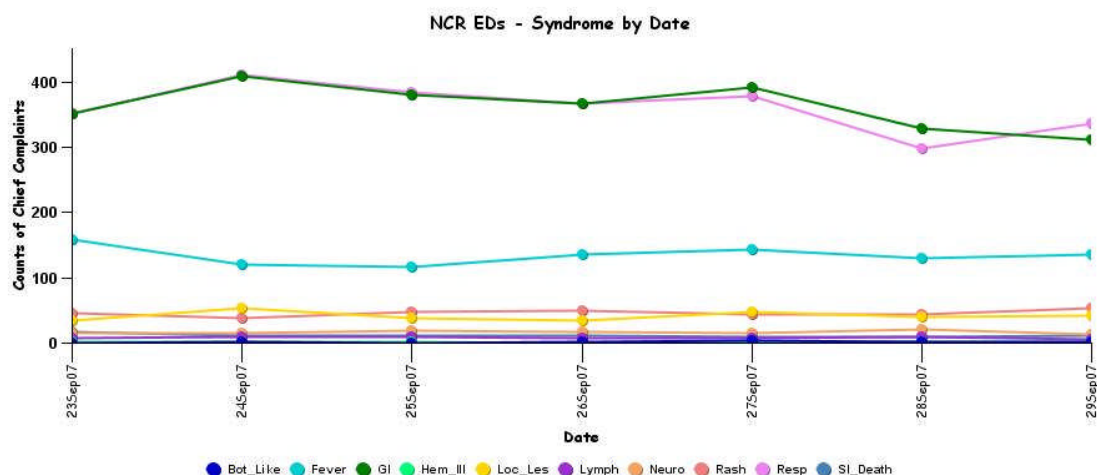
**National:** Yellow (ELEVATED) \*The threat level in the airline sector is Orange (HIGH)  
**Maryland:** Yellow (ELEVATED)

### **SYNDROMIC SURVEILLANCE REPORTS**

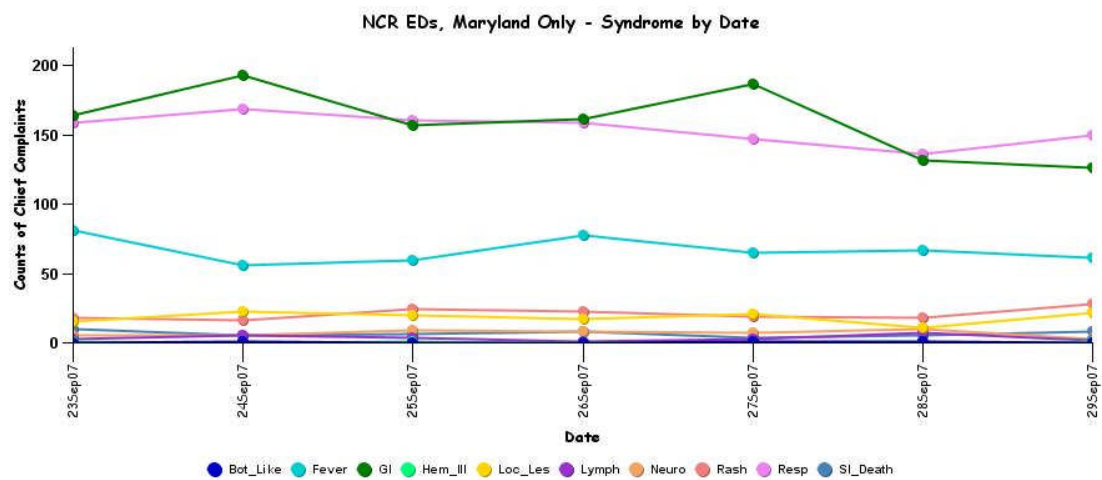
#### **ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):**

Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts only. Note: ESSENCE – ANCR Spring 2006 (v 1.3) now uses syndrome categories consistent with CDC definitions.

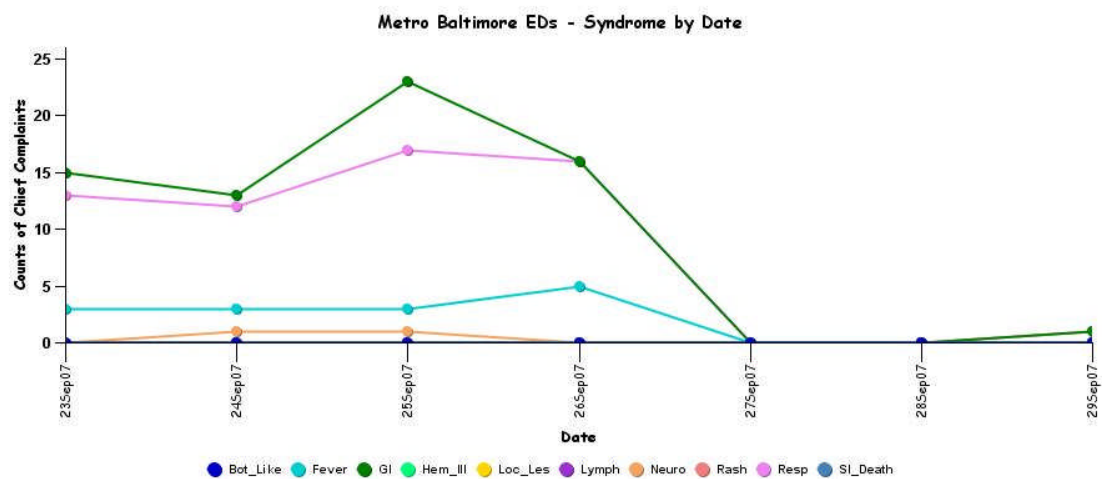
Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.



\* Includes EDs in all jurisdictions in the NCR (MD, VA, DC) under surveillance in the ESSENCE system



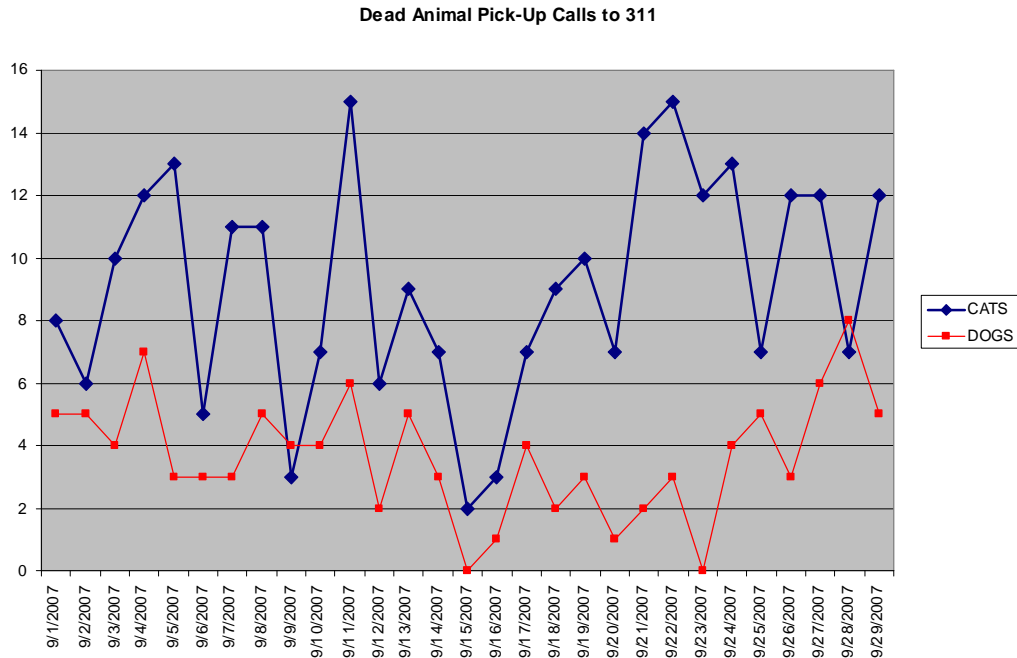
\* Includes only Maryland EDs in the NCR (Prince George's and Montgomery Counties) under surveillance in the ESSENCE system



**\*Low counts due to data transmission issues, problem is in the process of being resolved\***

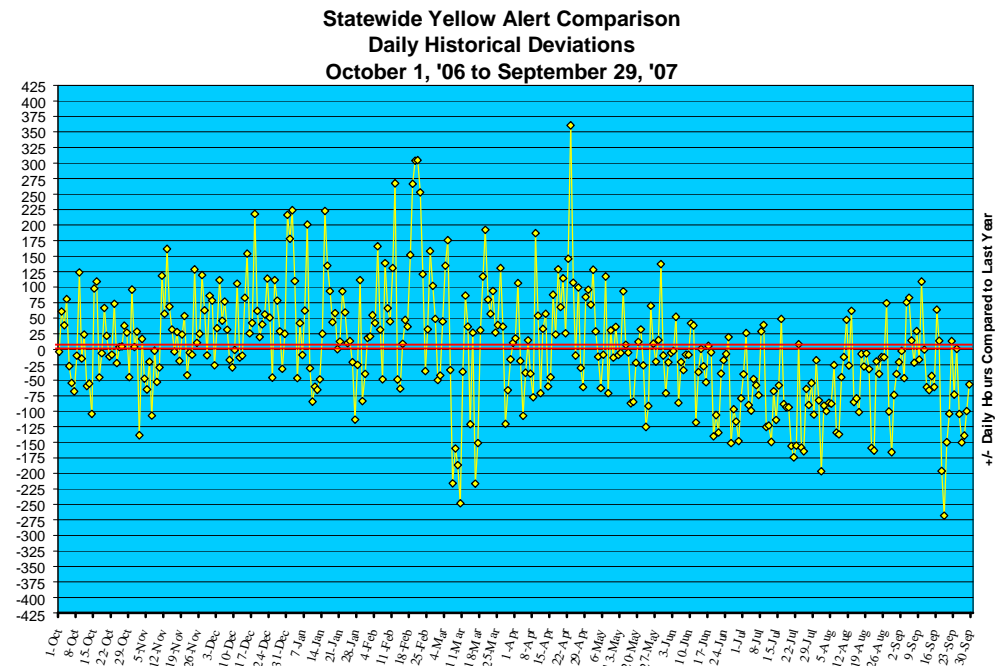
\* Includes EDs in the Metro Baltimore region (Baltimore City and Baltimore County) under surveillance in the ESSENCE system.

**BALTIMORE CITY SYNDROMIC SURVEILLANCE PROJECT:** No suspicious patterns in the medic calls, ED Syndromic Surveillance and the animal carcass surveillance. Graphical representation is provided for animal carcass surveillance 311 data.



## REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

**YELLOW ALERT TIMES (ED DIVERSION):** The reporting period begins 10/01/06.



## **REVIEW OF MORTALITY REPORTS**

**OCME:** OCME reports no suspicious deaths related to BT for the week.

## **MARYLAND TOXIDROMIC SURVEILLANCE**

**Poison Control Surveillance Monthly Update:** Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in August 2007 did not identify any cases of possible terrorism events.

## **REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS**

### **COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):**

<b>Meningitis:</b>	<b><u>Aseptic</u></b>	<b><u>Meningococcal</u></b>
New cases:	18	0
Prior week:	24	0
Week#39, 2006:	16	0

### **OUTBREAKS: 1 outbreak was reported to DHMH during MMWR Week 39 (Sep. 23- Sep. 29, 2007):**

#### **1 Foodborne Gastroenteritis outbreak**

1 outbreak of FOODBORNE GASTROENTERITIS associated with a Restaurant (Out of State)

### **MARYLAND SEASONAL FLU STATUS:**

Seasonal Influenza reporting occurs October through May. No cases of influenza were reported to DHMH during MMWR Week 39 (September 23 - 29, 2007).

**\*Please note:** Influenza data reported to DHMH through the National Electronic Disease Surveillance System (NEDSS) is provisional and subject to further review.

## **PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS**

**WHO Pandemic Influenza Phase:** Phase 3/4: No or very little human-to-human transmission/Small clusters with limited human-to-human transmission, suggesting that the virus is not well adapted to humans

**US Pandemic Influenza Stage:** Stage 0/1: New domestic animal outbreak in at-risk country/Suspected human outbreak overseas

\*More information regarding WHO Pandemic Influenza Phase and US Pandemic Influenza Stage can be found at:  
<http://bioterrorism.dhmh.state.md.us/flu.htm>

**WHO update:** As of September 10, 2007, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 328, of which 200 have been fatal. Thus, the case fatality rate for human H5N1 is about 61%.

**AVIAN INFLUENZA, HUMAN (Indonesia):** 24 Sep 2007, An Indonesian woman suspected of being infected with bird flu has died in the West Java city of Bandung, hospital sources there said on Sep 23. Samples from the 30-year-old woman have been sent for testing in Jakarta, said a staff member at Bandung's Hasan Sadikin general hospital. A total of 2 tests must come back positive for the H5N1 virus before a victim is confirmed as part of the official bird flu death toll in Indonesia, which is the highest in the world. The woman, who died on Sep 22, was showing symptoms of bird flu infection, such as fever, coughing, breathing difficulties, and low red blood count. No further details were given, but the Koran Tempo newspaper said that the victim fell sick a few days after one of her pet birds died. Transmission usually occurs directly from birds to humans. The kind of bird involved has not been identified.

**AVIAN INFLUENZA, HUMAN (Indonesia):** 24 Sep 2007, According to local media on Sep 24, 2 Indonesian children were in critical condition at a hospital in Riau Province with doctors strongly suspecting them of having developed bird flu symptoms in the country where 85 people already died of the virus. The 2 boys, ages one and 3, are being treated in isolated rooms at the Arifin Ahmad Hospital in the provincial capital of Pekanbaru, leading news website Detikcom said. Detikcom quoted Dr. Azizman Saad with the hospital as saying, "They are suffering high fever and respiratory problems," and, "the condition of their lungs is deteriorating, with excessive liquid production." Laboratory tests by the hospital indicated that the 2 patients had bird flu but further tests in Jakarta are needed for confirmation.

**AVIAN INFLUENZA, HUMAN, TRANSPLACENTAL TRANSMISSION:** 28 Sep 2007, The H5N1 bird flu virus can pass through a pregnant woman's placenta to infect the fetus, researchers reported on Sep 27. They also found evidence of what doctors had long suspected- that the virus not only affects the lungs, but also passes throughout the body into the gastrointestinal tract, the brain, liver, and blood cells. "The work helps us to understand H5N1's high fatality rate, as well as serving as model for global collaboration in the field of emerging infectious diseases," said Dr. Ian Lipkin of Columbia University in New York, who collaborated in the study. A team at Peking University in Beijing studied tissue taken from 2 people killed by H5N1 in China- a 24-year-old pregnant woman and a 35-year-old man." The study is the first to come out of the Infectious Disease Center at Peking University in Beijing, established after the epidemic of severe acute respiratory syndrome or SARS, a new virus that spread out of China in 2003, killing 800 people and infecting 8000 before it was stopped. The center is now looking at victims of H5N1 avian influenza. Jiang Gu and colleagues at Peking University looked at tissue samples from throughout the bodies of the victims. They found genetic material from the virus in the lungs, as expected, but also in the brain, the placenta, the intestines, and in immune system cells in the blood and the liver. The 4-month-old fetus, which died with its mother, was also infected, the researchers reported in the Lancet medical journal. Their findings support the theory of a "cytokine storm"- the idea that the immune system overreacts to the virus in some cases, and sends out an overwhelming swarm of signaling chemicals that end up killing the patient. They also found evidence the virus had damaged immune cells including macrophages, which they said suggests the virus not only over stimulates parts of the immune system but can also suppress other parts.

**AVIAN INFLUENZA, POULTRY, H7N3 (Canada):** 29 Sep 2007, Highly pathogenic H7N3 avian influenza has been detected in a commercial poultry operation in Saskatchewan, the Canadian Food Inspection Agency (CFIA) announced on Sep 27. This virus is not the same as the strain circulating in Asia, Africa and Europe, which has been associated with human illness. H7N3 is not normally associated with serious human illness. All birds on the infected premises will be humanely euthanized and disposed of in accordance with provincial regulations and internationally accepted disease control guidelines. Normally, birds on any commercial operations within one kilometer of an infected premises would also be destroyed, but early information indicates that no such operations are present in the immediate area. Once all birds have been removed, the CFIA will oversee the cleaning and disinfection of the barns, vehicles, equipment and tools to eliminate any infectious material that may remain. To limit any potential virus spread, the CFIA will apply restrictions on the movement of poultry and poultry products within three kilometers of the infected premises. As an additional safeguard, any poultry operations within ten kilometers of the infected premises will be closely and regularly monitored for signs of illness. The CFIA is investigating the recent movement of birds, bird products and equipment onto and off of the property. Through this activity, additional cases of infection may be detected. It may be difficult to identify the source of the virus, but the possibility of exposure to wild waterfowl, which are the natural hosts for the virus, cannot be discounted. The CFIA wishes to acknowledge the responsible actions of the owner, who reported signs of illness at the earliest possible moment. This commitment to animal health protection has maximized the Agency's ability to contain and eliminate this situation as quickly as possible.

#### **NATIONAL DISEASE REPORTS:**

**E. COLI O157, GROUND BEEF, RECALL (Multi State):** 27 Sep 2007, The CDC said on Sep 26 that 21 people in 8 states may have fallen ill after eating hamburgers possibly contaminated with E. coli O157 bacteria. CDC spokeswoman Lola Russell said 3 cases, 2 in New York and one in Florida, are confirmed as being linked to the ground beef, with the other 18 cases possibly linked and under investigation. No one has died, but Russell said she had no additional information on the cases. Elizabeth, NJ-based Topps Meat Company announced a recall on Sep 25, for boxes of frozen hamburgers it distributed. The recall affects 331 582 pounds of frozen beef patties and 21 products that were distributed nationwide, the USDA and Topps said. Russell and USDA spokeswoman Amanda Eamich said the illnesses were reported in Connecticut, Florida, Indiana, Maine, New Jersey, New York, Ohio, and Pennsylvania. Topps spokeswoman Cortney McMahon said officials continue working to find the cause of the contamination. "That investigation is still ongoing," McMahon said. "Topps is going to fully cooperate with the USDA." Health officials found contaminated burgers in one New York victim's home freezer. The boxes recalled carry the number "Est. 9748" inside the USDA mark of inspection. The company, the leading American manufacturer of frozen hamburgers, said this was its first recall in its 65-year history. A full list of the recalled products is available at <http://www.toppsmeat.com>. (Food Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) \*Non-suspect case

**PLAGUE, PRAIRIE DOGS (South Dakota):** 27 Sep 2007, Plague has apparently now spread to eastern Fall River County where it has decimated prairie dog populations and made that area much less attractive for the reintroduction of endangered black-footed ferrets, wildlife officials say. However, plague still has not been found in Conata Basin near Badlands National Park, site of the most successful black-footed ferret reintroduction in the country so far. Plague in

prairie dogs and other animals (known as sylvatic plague) generally does not pose a widespread threat to humans, although people can get the disease. However, the appearance of plague has wildlife officials worried about the already established ferret population in Conata Basin. Trudy Ecoffey, senior biologist with the Oglala Sioux Tribe Parks and Recreation Department, estimates plague has affected 30 000 acres of prairie dogs. Although no prairie dogs have been tested and confirmed with plague, they have disappeared from large colonies in the area and plague is the most reasonable explanation. At Conata Basin, the government has spent years and millions of dollars to establish a population of black-footed ferrets, which were once thought to be extinct. To protect the project, FWS crews have been dusting prairie dog burrows in Conata Basin with an insecticide that kills fleas, the primary carriers of plague. Ecoffey, who is monitoring the plague's spread on the Pine Ridge Reservation, said the disease eventually may reach Conata Basin, home of the endangered ferrets. (Plague is listed in Category A on the CDC list of Critical Biological Agents) \*Non-suspect case

**PLAGUE, BUBONIC, HUMAN (New Mexico):** 28 Sep 2007, The state Department of Health reports that an East Mountain woman is the state's 5th confirmed case of human bubonic plague in 2007. The 58-year-old woman's plague was confirmed on the night of Sep 27. She is currently hospitalized and recovering, according to the department. The 4 other cases of plague confirmed in the state in 2007 occurred in Santa Fe, Torrance, San Juan, and Bernalillo counties. A Bernalillo County boy died of the disease in June 2007. Health Department officials are currently working with the Albuquerque Environmental health department to determine where the East Mountain woman may have contracted the disease. "We are determining whether others are at risk, alerting physicians that plague is in the area, and providing information to neighbors in a door-to-door educational campaign," state epidemiologist Mack Sewell said in a news release. Previous plague cases in 2007 have been associated with flea bites, according to the health department. Sewell suggests that people use a flea control product on their pets to minimize the likelihood of introducing fleas to their environments. New Mexico experienced 8 human plague cases in 2006, 2 of them fatal. (Plague is listed in Category A on the CDC list of Critical Biological Agents) \*Non-suspect case

**ANTHRAX, ANIMAL SKIN (Connecticut):** 28 Sep 2007, State and federal authorities said Friday they may assemble a tent around an anthrax-tainted house on Padanaram Road in Danbury, CT, and then pump it full of a gas that could kill the anthrax spores that remain inside. While there is a second option- to go back into the house, wash and vacuum its entire interior and remove its carpets- they said fumigation is their first choice because it would be more thorough and less destructive. "What we really want to do is take a whole-house approach," said Dr. James Hadler, chief epidemiologist at the state Department of Public Health. Michael Nalipinski, on-site coordinator for the Environmental Protection Agency (EPA), said there's no timetable for starting either approach. "There are only a couple of contractors in the country that do this work," Nalipinski said of the fumigation. "We don't know what work they're doing now, and when they could fit this into their schedule. They need to know things like the size and square footage of the house." The EPA will pay all the costs of the clean-up. The city is applying for a \$25000 grant from the agency to recover the costs of policing the site. A local musician and drum-maker contaminated his car trunk, the barn behind the house, and the house itself with anthrax spores in August when he purchased goat skins in New York City to use for drum heads. State health officials confirmed earlier this month that the drum-maker and a family member had contracted cutaneous anthrax. The disease is not contagious and the two are taking antibiotics and recovering from their infection. The discovery of the disease triggered a complex and expensive operation to test the site for spores and clean it up. (Anthrax is listed in Category A on the CDC list of Critical Biological Agents) \*Non-suspect case

#### **INTERNATIONAL DISEASE REPORTS:**

**PLAGUE, BUBONIC (Mongolia):** 24 Sep 2007, A case of glandular bubonic plague in Gobisumber aimag. Mongolia was confirmed this week. A 16-year-old boy in Choir, the capital city of the aimag, showed symptoms of the plague, some days after he had cut his finger while skinning a marmot hunted by his father. The marmot is a primary carrier of the plague bacillus in Mongolia. The preliminary diagnosis was confirmed by tests at the National Center for Infectious Disease with Natural Foci (NCIDNF). The boy's condition is now stable, according to local authorities. The Center has sent 5 veterinary surgeons to Choir to assess the situation. Detailed investigations identified 57 persons with whom the boy came into direct contact during the incubation period. Of them, 54 found in the area were isolated and given preventive medical treatment. Of these, 40 have been since released, as they showed no symptoms during the incubation period. Uncomplicated bubonic (glandular) plague is not transmissible from person-to-person. It is only when *Yersinia pestis* bacilli spread to the lungs through a bacteremia or is initially acquired from aerosol spread that contacts would be at risk. (Plague is listed in Category A on the CDC list of Critical Biological Agents) \*Non-suspect case

**CHOLERA (Iraq):** 25 Sep 2007, Since late August 2007, an outbreak of cholera has spread to 25 districts of northern Iraq and 4 districts in southern Iraq and across the center of the country. It is estimated that more than 30 000 people have fallen ill with acute watery diarrhea, among which 2116 were identified as positive for *Vibrio cholerae*. The case fatality rate is 0.52 percent and has remained low throughout the outbreak, although it continues to spread across Iraq and dissemination to as yet unaffected areas remains highly possible. The outbreak was first detected in Kirkuk province, where 68 percent of laboratory-confirmed cholera cases have so far been reported, and then spread to Sulaymaniyah and Erbil provinces. Additional isolated cases of cholera have also been identified in other parts of the country, including Tikrit, Mosul, Basra, Baghdad, and Dahuk. The Government of Iraq has mobilized a multi-sectoral response to the outbreak. Specific control measures have been reinforced and preventive measures to reduce the risk of transmission to unaffected areas have been put in place. However, a severe shortage of chlorination products has been noted and replenishment is

urgently needed to enable water supplies to be treated to render them safe for human consumption. Provision of safe water is the highest priority in controlling an outbreak of cholera. WHO continues to support the National and local health authorities in the ongoing response operations. In controlling the spread of cholera, WHO does not recommend any special restrictions to travel or trade to or from affected areas. (Water Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) \*Non-suspect case

**EBOLA HEMORRHAGIC FEVER (Democratic Republic of Congo):** 27 Sep 2007, The Ministry of Health of the Democratic Republic of the Congo (DRC) is continuing to respond to the ongoing outbreak of Ebola hemorrhagic fever in the Province of Kasai Occidental with the support of a wide range of international partners. As of Sep 27, there have been a total of 17 laboratory-confirmed cases of Ebola hemorrhagic fever reported in the Mweka and Luebo health zone, Kasai Occidental Province, along with additional confirmations of other etiologies associated with this outbreak, including typhoid and Shigella dysenteriae type 1. The last confirmed case of Ebola died on Sep 22 in Kampungu MSF isolation ward and was buried safely. Mobile laboratories, installed by specialists from the Centers for Disease Control and Prevention in the United States and the National Public Health Agency of Canada in 2 of the affected villages are enabling the teams on the ground to conduct rapid and precise diagnosis of new suspected Ebola cases within 2 to 6 hours. Teams on the ground are focusing on breaking the chain of transmission and are continuing to monitor additional suspected cases in isolation facilities and to trace contacts. The national health authorities are putting in place stringent infection control measures in health centers and hospitals in the affected area to minimize the risk of infection among health care workers. Information and training material on infection control is being prepared and disseminated to provincial health authorities across the country in case additional cases are identified beyond the currently affected area. Retrospective investigations of hospital records are underway to determine the progress the outbreak took in its initial stages and to document the spread of the epidemic in the first few months. (Viral hemorrhagic fevers are listed in Category A on the CDC list of Critical Biological Agents) \*Non-suspect case

**BRUCELLOSIS, HUMAN, ANIMALS (Bulgaria):** 27 Sep 2007, Lab tests confirmed 20 new people from Bulgaria's town of Harmanli are infected with brucellosis. A total of 36 animals were previously declared infected with the infection in Harmanli. About 2000 other samples collected from animals and some 100 ones collected from people were examined in the beginning of September 2007. There is still no final conclusion on how the infection was introduced into the town. Some veterinarians say it might have been brought to the town as a result of illegal trade with infected animals, imported from Greece, where such cases are common. Another hypothesis is that bacteria were brought to the place due to buying cattle from farmers from the village of Vulche pole, which was imposed quarantine after it was also hit by the infection. That was the first time in 60 years that an outbreak of the disease is detected in Bulgaria. (Brucellosis is listed in Category B on the CDC list of Critical Biological Agents) \*Non-suspect case

\*Cases and outbreaks will be cited for suspect level with regards to suspicion of BT threat. Therefore, cases and outbreaks will be categorized as "Determined BT", "Suspect" or "Non-suspect".

#### **OTHER RESOURCES AND ARTICLES OF INTEREST:**

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: <http://bioterrorism.dhmr.state.md.us/>

**MMWR Weekly Report.** September 28, 2007 / 56(38): 1001-1004.

**Update: Influenza Activity - United States and Worldwide, May 20--September 15, 2007**

This report summarizes influenza activity in the United States and worldwide since the last MMWR update.

#### **IOM calls for new research on safety gear for health workers**

An Institute of Medicine committee that studied issues concerning personal protective equipment (PPE) for healthcare workers in an influenza pandemic is calling for renewed efforts to learn how influenza viruses spread, promote proper use of PPE, and improve the equipment itself.

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**NOTE:** This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

Questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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